# UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION RENTON, WASHINGTON

In the matter of the petition of

## Richard A. Henson

Regulatory Docket No. 27573

for an exemption from 25.811(f) of the Federal Aviation Regulations

## GRANT OF EXEMPTION

By letter dated December 21, 1993, Mr. Richard A. Henson, Salisbury/Wicomico Airport, Salisbury, Maryland 21801, petitioned for an exemption from the provisions of Part 25 of the Federal Aviation Regulations (FAR) to permit type certification of his Learjet Model 31A without the required emergency exit outline bands. Although not specifically mentioned in the petition, that requirement is contained in § 25.811(f)(1) and (2) of the FAR. By subsequent telephone conversation, Mr. Henson advised that the affected airplane is serial number 084.

A telephone call from a local Aircraft Certification Office (ACO) on January 28, 1994, brought to our attention an inadvertent typographical error affecting the terms of this grant of exemption. The error implied that the grant was from the provisions of § 25.812(f)(1) and (2), rather than § 25.811(f)(1) and (2). This amendment corrects that error.

# Section of the FAR affected:

The regulations incorporated by reference in Type Certificate No. A10CE for the Learjet Model 31A include the emergency exit marking requirements of § 25.811(f)(1) and (2). Section 25.811(f) specifies that each emergency exit that is required to be openable from the outside, and its means of opening, must be marked on the outside of the airplane. Subparagraphs (f)(1) and (2) of that section, which were adopted in March 1965, further specify that the outside marking for each passenger emergency exit in the side of the fuselage must include a 2-inch colored band outlining the exit and that the band must have color contrast to be readily distinguishable from the surrounding fuselage surface.

#### Related sections of the FAR:

Sections 121.310(g) and 135.178(g) contain similar marking requirements. Those sections are applicable to airplanes used in air carrier, air taxi, or commercial service, regardless of whether the markings are required from a type certification standpoint. They do not apply to the petitioner's airplane unless is it used in air carrier, air taxi, or commercial service under the provisions of Part 121 or Part 135.

# The petitioner's supportive information is as follows:

"The aircraft I am trading in on the Learjet is a Citation II 551 with no door or window markings, configured for eight passengers with dual, club seating. The Learjet I am buying is legal for eight passengers, but only by seating three on the bench seat and one on the potty. I will be using the Learjet only for corporate transportation and do not expect to carry any more than two to four passengers in the aircraft at any one time. The aircraft will never be used, during my ownership, for any type of commercial activities.

"I am requesting an exemption since I feel there is no other requirement, safety or otherwise, for door markings on the new Lear except that it is designated as a Part 25 aircraft.

"I have enclosed a picture of the aircraft showing the small area of the fuselage as you would approach it for rescue purposes. I don't see, personally, how any fire or rescue personnel would not readily see the door area since it has a handle in the middle of the door and it is the only area in that small fuselage that does not have a window. addition, I might add that the optional large cargo door that I have chosen somewhat dwarfs the remaining portion of the fuselage forward of the wing making the door more obvious to anyone approaching the aircraft. For your information, there must be around 700 35A's flying without door markings, using identically the same fuselage. I would also ask that the painted striping around the escape window on the right side of the fuselage be waived. This window has a long, 4-inch red painted handle on top of the window that could hardly be missed by any emergency team. This red handle is against an almost white background.

"In addressing the area of public interest, I believe that such door marking requirements on only certain selected small aircraft of the same passenger volume are not cost effective and, therefore, do not serve the public interest. I firmly believe that the public is better served if we can hold to a minimum any operation such as this as long as safety of flight and ground operations are not affected.

"Since I will be taking delivery of this aircraft the end of January, 1994, I would very much appreciate your waiving the 120-day filing requirement as well as the publication for comments. Such delays would make an impossible situation regarding delivery that was planned some time ago for this new aircraft."

The Federal Aviation Administration (FAA) finds, for good cause, that action on this petition should not be delayed by publication and comment procedures because such delay would negate any benefit the petitioner would otherwise gain from the requested action.

## The FAA's analysis/summary is as follows:

The Learjet Model 31A, which was designed primarily for business or personal transportation, is powered by two turbojet engines mounted on the aft sides of the fuselage. The entry door in the forward left-hand side of the fuselage serves as the emergency exit on that side of the cabin, while a smaller emergency exit is provided over the wing on the right-hand side. The petitioner's particular airplane has seating for a maximum of eight passengers; however, an airplane with this emergency exit arrangement could only have seating for nine passengers in any event. These two exits are intended for emergency egress of the two flight crewmembers, as well as any passengers. The cabin of the Model 31A is 20 feet in length, which is small compared to that of the typical transport category airplane designed for air carrier operation. Type Certificate No. Aloce was originally issued March 17, 1966, for an earlier model, the Learjet Model 24. It has since been amended a number of times to include newer versions of the same basic design.

The regulations incorporated by reference in a type certificate, commonly referred to as the "type certification basis," are established under the provisions of Part 21 of the FAR. Section 21.17 specifies, in part, that an applicant for a type certificate for an airplane must show that the airplane complies with the applicable requirements in effect on the date of application for that type certificate. Compliance with later standards may also be elected or required. Upon showing that the airplane complies with the type certification basis established under § 21.17, the applicant is awarded a type certificate.

After the type certificate is issued, the applicant may apply for a change to that certificate to include, for example, a follow-on version of the original airplane model. Section 21.101 specifies, in part, that an applicant for a change to a type certificate must show that the airplane, as changed, continues to comply with the regulations incorporated by reference. Section 21.101 permits an applicant for a change to elect compliance with later standards. Compliance with later standards may also be required when necessary to provide a level of safety equal to that established in the regulations incorporated by reference in the type certificate. Subsequent models may, therefore, have type certification bases that are the same as that of the original model in some instances, or may have type certification bases that include certain later standards. Generally, the type certification basis established for a specific model remains applicable even though some examples of that model may be manufactured after later standards are established as part of the type certification basis for another model.

As noted by the petitioner, the earlier Learjet models do not include the emergency exit outline band requirements of § 25.811(f)(1) and (2) in their bases for type certification. Although they are required to comply with the general marking requirements of § 25.811(f), airplanes of those models are not required to have the outline bands. Among the earlier models is the Model 35A, which was added to Type Certificate No. Aloce on April 30, 1976. The first model to include § 25.811(f)(1) and (2) in its basis for type certification, the Model 55, was added to Type Certificate No. Aloce on March 18, 1981. The newest model of this series, the Model 31A, was added to Type Certificate Aloce on July 25, 1991.

Unlike the Model 55, which has a longer fuselage, the Models 31A and 35A differ only in that the former has winglets and ventral fins while the latter has wingtip fuel tanks. None of these differences have any bearing on evacuation of occupants under emergency conditions. Both Models 31A and 35A are currently in production. As noted by the petitioner, the Model 35A does not have § 25.811(f)(1) and (2) included in its basis for type certification. Model 35A airplanes are, therefore, not required to have the emergency exit outline bands even though they and Model 31A airplanes have identical fuselage/emergency exit arrangements.

Due to the relatively small fuselage of the Learjet Model 31A, the FAA concurs that the location of the emergency exit on either side would be obvious to ground rescue personnel regardless of whether it is outlined with the bands required by § 25.811(f)(1) and (2). Consequently, there would be no derogation of safety if they were not painted on the petitioner's airplane. This is supported by the fact that the Model 35A, which has an identical fuselage/emergency exit arrangement, is permitted to remain in production without emergency outline bands.

It must be noted that an exemption from the provisions of § 25.811(f)(1) and (2) would not relieve the petitioner from complying with the general marking requirement of § 25.811(f). As noted above, § 25.811(f) specifies that each emergency exit that is required to be openable from the outside, and its means of opening, must be marked on the outside of the airplane. The remaining provision of § 25.811(f) would require the petitioner's Model 31A to be marked in the same manner as a Model 35A airplane.

It must also be noted that an exemption from the provisions of § 25.811(f)(1) and (2) would not provide relief from the provisions of either § 121.310(g) or § 135.178(g). Should the petitioner's Model 31A airplane be placed in air carrier, air taxi, or commercial service at a later date under the provisions of either Part 121 or 135, the emergency exit outline bands would have to be added, an exemption from § 25.811(f)(1) and (2) notwithstanding.

In consideration of the foregoing, I find that a grant of exemption is in the

public interest and will not significantly affect the overall level of safety provided by the regulations. Therefore, pursuant to the authority contained in §§ 313(a) and 601(c) of the Federal Aviation Act of 1958, delegated to me by the Administrator (14 CFR 11.53), the petition of Richard A. Henson for an exemption from the provisions of § 25.811(f)(1) and (2) is granted to permit type certification of the Learjet Model 31A, serial number 084, without emergency exit outline bands.

Issued in Renton, Washington, on February 1, 1994

Norman B. Martenson, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service